

DEPARTMENT OF AGRICULTURE  
CANADA

---

REPORT

OF THE

VETERINARY DIRECTOR GENERAL

(F. TORRANCE, B.A., D.V.S.)

FOR THE

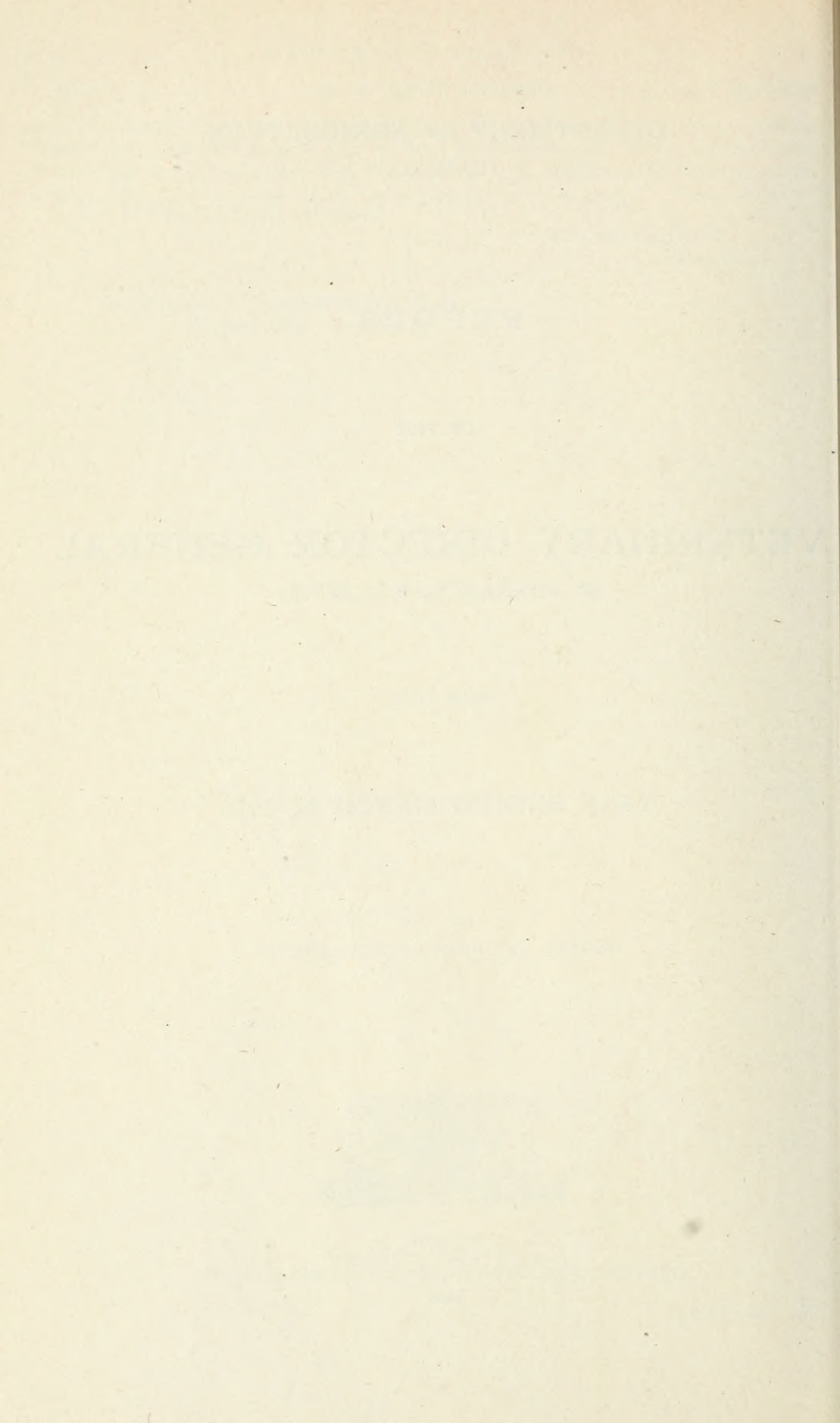
YEAR ENDING MARCH 31, 1917

*PRINTED BY ORDER OF PARLIAMENT.*



OTTAWA  
J. DE LABROQUERIE TACHÉ  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY  
1918







# REPORT

## OF THE

# VETERINARY DIRECTOR GENERAL.

---

OTTAWA, March 31, 1917.

SIR,—I have the honour to present my report for the year ending March 31, 1917.

The health of Canadian live stock has been fairly good, and the ravages of contagious diseases in general have been restrained within narrow limits, the statistics comparing favourably with those of previous years. The stamping out of foot-and-mouth disease in the United States has relieved us of much anxiety and enabled us to dispense with the extra precautions it had been necessary to take for the protection of Canada from this infection. Tuberculosis of hogs is shown by slaughter-house statistics to have again increased, and during the past five years has increased at the rate of 1 per cent per annum, and is now at the alarming figure of 19.37 per cent of hogs under federal inspection. The figures for cattle do not show any corresponding increase, the percentage for the same five years remaining practically stationary. Conservation of food demands that this great loss of food, lost through condemnation of tubercular meats, should be prevented by attacking the sources of infection and preventing the spread of the disease from cattle to hogs. This can be accomplished to a great extent by the sterilization of the by-products of cheese factories and creameries, and in my opinion this should be made compulsory. The cost of sterilization would be more than repaid by the protection of hogs and calves against tuberculosis.

In spite of the absence on military service of many members of our staff, the work of the branch has been carried on efficiently and economically, in both the Contagious Diseases and Meat Inspection Divisions. A detailed description of the work of the two divisions follows, beginning with our field work in control of contagious diseases.

### GLANDERS.

A slight reduction in the number of horses destroyed is noted, as compared with last year, and, as before, the greater number of these were found in Saskatchewan. As previously indicated in former reports, the conditions in that province render the eradication more difficult than in other parts of Canada, and I am glad to note a reduction from 191 killed in 1916, to 164 killed in 1917.

*Dominion.*—Two were killed on inspection, 187 at first test, 31 at second test, 7 at third test, 1 at fourth test, total 228 (valued at \$33,609, at a cost of \$22,238.95).

Eighty-two showed clinical symptoms.

Eight thousand four hundred and eleven horses were tested with mallein, of which 233 reacted, 229 reactors being destroyed, the remaining 4 were returned to the United States. Of the 233 reactors, 82 showed clinical symptoms of glanders at or during the test.

Eighty-four horses are under control for retest.

Of the above 229 horses slaughtered, 2 were killed without compensation.



8 GEORGE V, A. 1918

*Nova Scotia.*—Fifty-two horses were tested and proved to be healthy.

*New Brunswick.*—One hundred horses and one shetland pony tested and proved to be healthy.

*Quebec.*—Eight were killed at first test, 1 at second test, total 9 (valued at \$1,494, at a cost of \$995.99).

Six showed clinical symptoms.

Seven hundred and ninety-five horses were tested with mallein, of which 9 reacted and were destroyed. Of the 9 reactors, 6 showed clinical symptoms at or during the test.

No horses are under control for retest.

Of the nine slaughtered, 5 were in the electoral district of Nicolet, 2 in Terrebonne, 1 in Dorchester, and 1 in Pontiac.

*Ontario.*—One horse reacted to first test and was destroyed.

Two hundred and ninety-three horses, 5 mules, and one jack were tested with mallein; one horse reacted and was destroyed, having been imported at Cornwall, Ont.

*Manitoba.*—Six hundred and sixty-two horses and seven mules were submitted to the mallein test for the first time, and nine horses to the second test; all proved healthy.

*Saskatchewan.*—One hundred and twenty-four were killed at 1st test, 30 at 2nd test, 7 at 3rd test, 1 at 4th test, 2 on inspection; total, 164 (valued at \$24,320, at a cost of \$16,046.35).

Fifty-two showed clinical symptoms.

Four thousand seven hundred and twelve horses, 89 mules, 4 asses, were tested with mallein, of which 165 reacted; 164 were destroyed and one returned to the United States.

Of the 165 reactors, 52 showed clinical symptoms at or during the test.

Six horses are under control for retest.

Of the 164 horses slaughtered, 97 were in the electoral district of Regina, 46 in Moose Jaw, 13 in Assiniboia, 4 in Humboldt, 4 in Battleford.

*Alberta.*—Fifty-four were killed at 1st test, 1 at 2nd test; total, 55 (valued at \$7,795, at a cost of \$5,196.61).

Twenty-four showed clinical symptoms.

Some 1,167 horses and 20 mules were tested with mallein, of which 55 horses reacted and were destroyed. Of the 55 reactors, 24 showed clinical symptoms at or during the test.

Seventy-eight horses are under control for retest.

Of the 55 slaughtered, 39 were in the electoral district of Macleod, and 16 in Medicine Hat.

*British Columbia.*—A total of 496 horses and 6 mules were tested with mallein, of which 3 reacted and were returned to United States.

*Yukon Territory.*—One horse tested at White Horse, and proved healthy.

## HOG CHOLERA.

Comparing this year with last, our losses show a reduction of 18.8 per cent. Again most of our outbreaks started from premises where raw garbage was fed to pigs. Our system of licensing garbage feeders appears to be working well, enabling us to maintain a close supervision over these places, and to get early information of the appearance of disease.



## SESSIONAL PAPER No. 15b

The use of serum for the protection of exposed hogs has been as extensive as circumstances would permit, and has resulted in a large saving to the country and to the hog raisers.

*Serum Treatment of Hogs, 1916-17.*

A total of 7,197 hogs were serum treated, 7 of which received second treatment; 289,794 cubic centimetres were used in above-mentioned treatment.

Serum cost, \$4,350.

Amount saved by serum treatment—

Compensation saved to Department.. . . .	\$ 72,000
Value saved to owners (estimated).. . . .	144,000
	<hr/>
	\$216,000

In the Dominion, 4,623 hogs, valued at \$49,607.50, were destroyed as diseased, at a cost of \$30, 497.98 in compensation.

*Nova Scotia.*—\$130 was paid for hogs slaughtered the previous fiscal year.

*New Brunswick.*—One owner's premises were quarantined on suspicion, involving the control of 1 hog.

*Quebec.*—Thirty-five outbreaks of hog cholera occurred, in which 1,570 hogs, valued at \$21,160, were destroyed in the undermentioned districts, at a cost of \$14,030.59 in compensation; 148 premises were also quarantined on suspicion, involving the control of 606 hogs; 4 hogs, valued at \$54, were destroyed for purposes of examination, but no evidence of hog cholera was found.

District.	No. outbreaks.	Hogs destroyed.	District.	No. outbreaks.	Hogs destroyed.
Jacques Cartier .....	2	84	Lévis .....	2	7
Laval .....	4	317	Champlain .....	1	57
Montmorency .....	3	50	Lotbinière .....	1	8
Quebec .....	4	764	Montcalm .....	1	5
Terrebonne .....	2	40	Portneuf .....	1	2
Bagot .....	2	32	Dorchester .....	1	6
Two Mountains .....	1	53	Beauce .....	1	2
Compton .....	1	4	Richelieu .....	1	42
Rouville .....	3	31	Three Rivers and St. Maurice .....	1	8
Argenteuil .....	1	10			
Nicolet .....	1	35			
Bellechasse .....	1	13			
				35	1,570

*Ontario.*—Forty-five outbreaks of hog cholera occurred in Ontario, in which 2,887 hogs, valued at \$26,980.50, were destroyed in the undermentioned districts, at a cost of \$15,489.40 in compensation; 439 premises were also quarantined on suspicion, involving the control of 6,603 hogs; 45 hogs, valued at \$349.50, were destroyed for purposes of examination, but no evidence of hog cholera was found.

District.	No. outbreaks.	Hogs destroyed.	District.	No. outbreaks.	Hogs destroyed.
Welland .....	3	148	Simcoe, S.R. ....	2	105
Middlesex .....	1	59	Simcoe, N.R. ....	2	140
Essex, N.R. ....	1	46	Lincoln .....	2	215
Essex, S.R. ....	3	125	Nipissing .....	3	173
Kent, E.R. ....	1	183	Parry Sound .....	1	115
Kent, W.R. ....	1	203	Lambton, E.R. ....	2	44
Peel .....	1	149	Lambton, W.R. ....	2	42
York, N.R. ....	1	62	Norfolk .....	1	216
York, C.R. ....	1	63	Waterloo, S.R. ....	1	85
York, S.R. ....	1	158	Hastings, E.R. ....	1	42
Elgin, E.R. ....	1	4	Russell .....	3	307
Elgin, W.R. ....	1	41	Carleton .....	1	49
Algoma, E.R. ....	3	37	Huron, E.R. ....	1	19
Ontario, S.R. ....	1	4	Brockville .....	1	47
Glengarry .....	1	4			
Wentworth .....	1	2			
				45	2,887



*Manitoba.*—One outbreak of hog cholera occurred in Manitoba, in which 17 hogs, valued at \$198, were destroyed without compensation.

*Saskatchewan.*—No outbreak of hog cholera occurred in Saskatchewan during the year 1916-17; 5 premises were quarantined on suspicion, involving the control of 218 hogs; 9 hogs, valued at \$77, were destroyed for purposes of examination, but no evidence of hog cholera was found.

*Alberta.*—Eight outbreaks of hog cholera occurred in Alberta, in which 145 hogs, valued at \$1,424, were slaughtered in the undermentioned districts at a cost of \$949.33 in compensation; 8 premises were quarantined on suspicion, involving the control of 396 hogs; 11 hogs, valued at \$127.50, were destroyed for purposes of examination, but no evidence of hog cholera was found.

District.	No. Outbreaks.	No. Hogs destroyed.
Edmonton .....	1	140
Macleod .....	1	5
	<hr/> 2	<hr/> 145

*British Columbia.*—One outbreak of hog cholera occurred in British Columbia, in which 5 hogs, valued at \$43 were slaughtered at a cost of \$28.66 in compensation. The above mentioned premises were in the electoral district of Nanaimo.

One owner's premises were also quarantined on suspicion, involving the control of 73 hogs. One of these hogs was destroyed for purposes of examination, at owner's request, but no evidence of hog cholera was found.

DOURINE.

A total of 48 animals, valued at \$4,924, were slaughtered as being affected with this disease, at a cost of \$3,222.63, distributed as follows:—

Province.	Electoral District.	Animals Quarantined.	Slaughtered.
Saskatchewan.....	Battleford.....	6	
	Moose Jaw.....	2	1
Alberta.....		8	1
	Medicine Hat.....	40	11
	Macleod.....	79	35
	Red Deer.....	15	1
	Calgary.....	4	
	Strathcona.....	1	
	Victoria.....	1	
Manitoba.....		140	47
	Dauphin.....	1	
		<hr/> 141	

In the electoral district of Medicine Hat there was one animal, valued at \$30, taken over for experimental purposes at a cost of \$20 in compensation.



HORSE MANGE.

Province.	Outbreaks.	Animals Affected.	Animals Quarantined.
Saskatchewan.....	6	62	376
Alberta.....	5	122	172

In the province of Quebec, electoral district of Beauce, one animal, valued at \$200, was slaughtered, \$133 being paid in compensation.

Some 16,194 horses and 95 mules were inspected on being presented for shipment from the quarantined area in Alberta and Saskatchewan.

CATTLE MANGE.

This disease remains confined to certain portions of southern Alberta and southwestern Saskatchewan, the infected district comprising what is known as the mange area. The movement of cattle from this area is under strict regulation, all cattle requiring veterinary inspection and dipping, unless destined to an abattoir for immediate slaughter. Within the area, continual efforts are being made to eradicate the disease by systematic dipping. Progress in this direction is fairly satisfactory, and, as a result, the number of infected herds is being reduced, and from time to time, as conditions warrant, the mange area is reduced in size.

Province.	Outbreaks.	Animals Affected.	Animals Quarantined.
Saskatchewan.....	12	892	10,799
Alberta.....	40	628	38,613
	52	1,520	49,412

Some 33,082 cattle were inspected on being presented for shipment from the quarantined area in Alberta and Saskatchewan, and 158,868 cattle were inspected in Winnipeg on arrival from points west thereof.

RABIES.

Alberta.—In Calgary, Alta., one owner’s premises were quarantined.

Ontario.—In Ontario, 51 premises were quarantined distributed as follows:—

District.	Premises quarantined.	District.	Premises quarantined.
Dufferin .....	2	Toronto Centre .....	1
Durham .....	1	Welland .....	6
Elgin, W.R. ....	5	Waterloo, S.R. ....	1
Halton .....	3	Wellington, S.R. ....	1
Middlesex, N.R. ....	1	York, C.R. ....	4
“ E.R. ....	1	“ N.R. ....	3
Peel .....	3	“ S.R. ....	5
Perth, S.R. ....	6		
Oxford, S.R. ....	1		
Toronto South .....	7		
			51



8 GEORGE V, A. 1918

## SHEEP SCAB.

In Quebec, one sheep was quarantined in the electoral district of Montmorency, on suspicion of sheep scab.

In Manitoba, 54 animals on four premises were found to be affected with sheep scab, involving the control of 226 animals on 10 premises as follows:—

District.	Affected.	Quarantined.
Dauphin .....	54	214
Portage la Prairie.....	0	12
	<hr/> 54	<hr/> 226

In accordance with the quarantine regulations, 49,802 sheep, imported into Canada, were quarantined for the prescribed period of thirty days.

## TUBERCULOSIS.

Our further experience in the operation of the new regulations shows that a step in the right direction has been taken. The absence of friction between our officers and the dairymen, whose herds have come under our regulations, is an indication that they are receiving fair treatment. It is also gratifying to note the comparatively small expense that has been incurred in removing tuberculous cows from the herds supplying milk to the two cities which have accepted federal aid. The experience of these cities will be likely to induce other municipalities to follow their example and thus protect their citizens from the danger of consuming raw milk from suspicious and perhaps diseased cows.

Some 444 cattle were tested on being imported into Canada, 13 of which reacted, 8 were classed as suspicious, and 423 proved healthy.

There were 1,802 cattle tested for export, 53 of which reacted, 6 were classed as suspicious, and 1,743 proved healthy.

A total of 2,991 cattle were tested, some being for shipment to different provinces of the Dominion, and others in herds under the supervision of the department, 207 reacted, 12 were classed as suspicious and 2,772 proved healthy.

There were 5,741 cattle tested by private practitioners, 481 of which reacted, 69 were classed as suspicious and 5,191 proved healthy.

All reactors were permanently earmarked by a veterinary inspector, in cases where the owner did not voluntarily destroy them.

## MUNICIPAL TESTING.

*Saskatoon Statistics.*—Of 954 cattle submitted to first test, 13 were reactors, or 1.36 per cent; 1,058 submitted to second test, 16 were reactors, or 1.5 per cent; 435 submitted to third test, 5 were reactors, or 1.1 per cent; 129 submitted to fourth test, no reactors; 24 submitted to fifth test, no reactors; 14 submitted to sixth test, no reactors.

Seven reactors slaughtered; value, \$1,605; compensation, \$534.30. Four reactors, purchased subject to test, were returned to previous owners. Three reactors not yet slaughtered.

In addition to the above, 9 animals which reacted during 1915-16 were slaughtered this year; value, \$960; compensation, \$202.95.

*Regina.*—Testing commenced March, 1916, and was continued until September, 1916.



## SESSIONAL PAPER No. 15b

Of 2,253 cattle submitted to first test, 117 were reactors, or 5.19 per cent; 443 submitted to second test, 4 were reactors, or 0.9 per cent; 120 submitted to third test, no reactors.

Eighty-five reactors slaughtered, value, \$5,140, compensation, \$1,624.77.

## ANTHRAX.

The following outbreaks were reported and dealt with during the year:—

Province.	Outbreaks.	Animals Quarantined.
Quebec .....	4	103
Ontario .....	6	246
Alberta .....	1	120
	<hr/> 11	<hr/> 469

## SCABIES IN FOXES.

In Prince Edward Island, four foxes were quarantined on suspicion.

## IMPORT INSPECTIONS.

Import inspections from United States and Newfoundland were: 63,624 horses, 10,694 mules, 6,146 cattle, 70,848 sheep, 223 swine, 147 goats, 19 asses, 3 foxes, 9 bears, 1 buffalo, 11 ponies, 2 deer, 2 donkeys, 9 camels, 2 wild horses, 2 burros, 72 elk.

Import inspections from Europe and elsewhere were: 80 horses, 299 cattle, 389 sheep, 10 swine, 1 jackass, 2 dogs.

A total of 3,673 horses were tested on arrival from the United States and allowed to proceed to their destination.



PURE BRED IMPORTS.

.HORSES.

Breed.	Great Britain.	United States.	Elsewhere.	Total.
Belgian .....	....	13	....	13
Clydesdale.....	68	3	....	71
Hackney .....	1	3	....	4
Percheron .....	....	154	....	154
Shetland .....	....	7	....	7
Shire .....	1	....	....	1
Standardbred .....	....	84	....	84
Thoroughbred .....	9	12	....	21
Welsh Pony .....	....	3	....	3
Total .....	79	279	....	358

CATTLE.

Breed.	Great Britain.	United States.	Elsewhere.	Total.
Aberdeen Angus.....	....	37	....	37
Ayrshire .....	18	4	....	22
Brown Swiss .....	....	13	....	13
Dutch Belted .....	....	1	....	1
Guernsey .....	....	10	....	10
Hereford .....	....	25	....	25
Holstein .....	....	21	....	21
Jersey .....	....	60	25	85
Polled Angus .....	15	27	....	42
Polled Durham .....	....	3	....	3
Shorthorn .....	308	1	....	309
Total .....	341	202	25	568

SHEEP.

Breed.	Great Britain.	United States.	Elsewhere.	Total.
Cotswold .....	15	....	....	15
Dorset .....	....	7	....	7
Hampshire .....	....	59	....	59
Karakul .....	....	....	117	117
Lincoln .....	102	3	....	105
Leicester .....	2	....	....	2
Oxford .....	12	....	....	12
Shropshire .....	266	70	....	336
Southdown .....	6	44	....	50
Suffolk .....	4	....	....	4
Total .....	407	183	117	707

SWINE.

Breed.	Great Britain.	United States.	Elsewhere.	Total.
Berkshire .....	3	4	....	7
Chester White .....	....	8	....	8
Duroc Jersey .....	....	11	....	11
Large Black .....	5	....	....	5
Ohio Improved Chester .....	....	2	....	2
Poland China .....	....	1	....	1
Tamworth .....	....	2	....	2
Yorkshire .....	2	....	....	2
Total .....	10	28	....	38

GOATS.

Breed.	Great Britain.	United States.	Elsewhere.	Total.
Anglo Nubian .....	....	11	....	11
Toggenburg.....	....	1	....	1
Total .....	....	12	....	12



DISEASED IMPORTS.

Port.	No. animals in infected shipments.	No. of shipments.	No. of animals infected.	Origin.	Action.
Cornwall, Ont.—Horses . . . .	2	1	1	United States	Reactor destroyed.
Big Muddy, Sask.—Horses..	2	1	1	" "	Both returned.
Kingsgate, B.C.—Horses ...	2	1	1	" "	Both returned.
Grand Forks, B.C.—Horses	4	1	1	" "	All returned.
Bridesville, B.C.—Goats ...	1	1	1	" "	Returned.
Huntingdon, B.C.—Cattle ..	7	1	1	" "	Returned.
Total . . . . .	18	6	6		

ANIMALS INSPECTED FOR EXPORT.

Port.	Horses.	Cattle.	Sheep.	Swine.	Dogs.	Cats.
Charlottetown to Newfoundland.....	50	268	245	166	..	..
Summerside " " .....	4	3	65	..	..	..
" " United States .....	..	..	11	..	..	..
Halifax to Newfoundland .....	6	1	..	1	..	..
" " Great Britain .....	2,796	..	..	..	..	..
" " St. Pierre and Miquelon.....	..	48	32	6	..	..
" " Bermuda .....	18	24	2	3	..	..
" " Jamaica .....	..	2	..	..	..	..
" " United States .....	..	..	..	..	2	1
" " * New Zealand.....	..	..	..	..	..	..
Sydney to Newfoundland .....	200	1,205	223	80	..	..
St. John to destination unknown .....	2,053	..	..	..	..	..
" " United States .....	..	1	..	..	..	..
Toronto to " .....	..	10,095	2,091	..	..	..
" " Bermuda .....	..	42	..	..	..	..
Totals .....	5,127	11,689	2,669	256	2	1

\* 1 monkey.

LABORATORIES.

The biological laboratory at Ottawa has continued to supply the mallein and tuberculin used by our officers in the diagnosis of glanders and tuberculosis, and has furnished an immense amount of black-leg vaccine, which is sold to farmers at a nominal price, and used for the protection of their herds against that disease. Other biological products, such as strangles and influenza bacterins have been produced in limited quantities, much of it supplied to the British Remount Commission for use in Canadian remount depots. Anti-abortion vaccine has also been prepared for use by our officers in experimental work in this disease. The staff of this laboratory has also done much useful work in examining morbid specimens sent in for diagnosis, in research work on diseases of poultry, and in the mounting and preparation of specimens for exhibition.

The branch laboratories at Lethbridge and Agassiz have done useful work in dealing with local problems affecting the live stock of southern Alberta and British Columbia, respectively. Dourine has chiefly occupied the attention of our acting pathologist at Lethbridge, his work in the serum diagnosis of that disease being of inestimable value in its eradication. At the Agassiz laboratory, the careful research work of Dr. Hadwen has already added much to our knowledge of the life-history of some important parasites of cattle and sheep. The value of such information is very great, as, without it, it would be difficult, if not impossible, to devise means for dealing with these parasites. A technical bulletin on the subject has been published.



## MEAT INSPECTION DIVISION.

Owing to the heavy demand for meat foods, for the Allied armies as well as the peoples of Great Britain, France and Italy, the Meat Inspection Division has experienced its busiest year since the inception of its work and the beginning of the war.

This greatly increased amount of work has not only involved added responsibilities, but has been performed under what in ordinary times would have been considered hardship and a handicap, owing to a shortage of experienced help. Yet your responsible officers met and handled the unusual situation cheerfully and no less effectively, thanks largely to the capability of the inspectors in charge of the various plants.

The question of overtime work by our officers in establishments had been under consideration, and finally special reports were called for in connection with it. These contained conclusive evidence that, in many instances, overtime work had not been warranted. While, perhaps, it may be impracticable, if not impossible, to entirely eliminate the practice of overtime work in establishments generally, it has been reduced materially in some of them, while in others it has ceased altogether.

This change has been brought about through a plan adopted in October, and agreed to by the packers without demur, whereby the management of an inspected establishment shall pay for the services, after 6.30 p.m. o'clock, of an inspector; veterinarians at the rate of 75 cents, and lay inspectors at the rate of 50 cents per hour.

The department's annual qualifying examination for veterinarians was held at various points in Canada on April 22, 1916. Fifty candidates wrote on the papers of this examination, which was passed by thirty-three, ten of whom have been appointed to positions in the Meat Inspection service.

The regular increases in salary were given at the beginning of the year, and they were, I need hardly say, much appreciated.

During the year many improvements were made in establishments under inspection. Owing to the greatly increased amount of business in such establishments, some large additions were made to several of them. These additions being up to date in construction and equipment, a great and economic step forward has been made, as such additions are naturally much more readily maintained in a proper sanitary condition. This stands for the conservation of meat foods, and lessens materially the condemnation of foods because of contamination.

Legal action was taken by the department during the year in two cases of violation of the Meat and Canned Foods Act. One violation was an illegal shipment at Moose Creek, Ont. The other was by a railway in Quebec, which broke a seal on a car of meats. In each case a conviction was secured and a fine imposed.

The new Union abattoir in Winnipeg was completed in 1916, and began operations under inspection on December 14, 1916. It is officially known as Establishment No. 8.

The following statistics are respectfully submitted:—

## A. Total slaughter:—

Cattle	648,859, Increase over	1915-16,	106,705 head or 19.68 per cent.
Sheep	416,575, “	1915-16,	13,428 “ 3.33 “
Swine	2,245,511, Decrease under	1915-16,	118,182 “ 5.00 “



SESSIONAL PAPER No. 15b

B. The provinces show increases or decreases as follows:—

Province.	Cattle.		Sheep.		Swine.	
	Head	Per cent	Head	Per cent	Head	Per cent
Ontario.....	+48·557	19·43	+1·291	0·77	−79·165	5·54
Quebec.....	+ 8·497	4·77	−2·448	1·90	−48·611	12·56
Manitoba.....	+26·300	58·58	+5·072	19·78	−13·868	6·76
Saskatchewan.....	+ 3·717	78·73	−2·661	34·93	−11·196	25·06
Alberta.....	+17·394	37·88	+4·970	14·18	+29·567	12·58
British Columbia.....	+ 2·461	15·59	+ 138	0·67	+10·879	27·01
New Brunswick.....	+ 380	100·00	+1·490	21·74..	.....	.....
Nova Scotia.....	.....	.....	.....	.....	.....	.....
P.E.I.....	− 601	22·16	+3,576	44·15	− 5,788	24·90

C. The percentage of slaughter for each province for the total for all Canada:—

Province.	Cattle.	Sheep.	Swine.
	Per cent	Per cent	Per cent
Ontario.....	45·99	40·21	60·10
Quebec.....	28·79	30·32	15·07
Manitoba.....	10·97	7·37	8·50
Saskatchewan.....	1·30	1·18	1·49
Alberta.....	9·76	9·64	11·78
British Columbia.....	2·81	4·91	2·28
New Brunswick.....	0·06	2·00	.....
Nova Scotia.....	.....	.....	.....
Prince Edward Island.....	0·32	4·37	0·78

SLAUGHTERINGS.

Cattle.—With the exception of a decrease in Prince Edward Island, all the provinces showed an increase in cattle killed.

Sheep.—In sheep killings, we find Quebec and Saskatchewan behind last year, while other provinces are ahead.

Swine.—In swine, we find all provinces showing a decrease, with the exception of Alberta and British Columbia.

Provincial percentage to total kill (see table C).—Ontario still holds the highest percentage to total kill in the three species, although slightly lower than last year. Quebec shows a larger decrease than Ontario, while Manitoba, Saskatchewan, and Alberta show increases in cattle. Only Manitoba and Alberta improve their position in sheep, Saskatchewan being lower than last year, Alberta and British Columbia being the only western provinces to show an increase in percentage of hogs killed to total.



8 GEORGE V, A. 1918

## CARCASS CONDEMNATIONS.

*Cattle.*—The percentage of carcass condemnations this year is 1.68 per cent against 1.95 per cent last year. This of itself is very satisfactory, but the proportion condemned for tuberculosis is much higher than last year, namely, 39.90 per cent against 31.20 per cent previous year. This is probably due to the large number of canner stock killed.

Those condemned for bruises, cripples, and imperfect bleeding are slightly under last year, 3.41 per cent against 3.89 per cent.

Calves condemned for immaturity are considerably lower than previous year, 37.75 per cent against 48.03 per cent.

Emaciated cattle are a little lower than last year, 5.61 per cent against 6.58 per cent.

The porportion of calves killed to total kill is a little lower than last year, 14.83 per cent against 17.20 last year.

*Sheep.*—The slightly lower percentage of sheep carcasses condemned, 12 per cent against 14 per cent calls for little or no comment.

*Swine.*—Comparatively, there is no difference between the number of swine carcasses condemned this year and last, the percentages being 0.27 per cent and 0.28 per cent, respectively, while the total percentage is about the same. We find that those condemned for tuberculosis are a little higher than last year, 62.22 per cent against 61.76, while those condemned for *cyst. cellulose* are a little lower, 8.10 per cent against 8.28 per cent.

The condemnations for hog cholera amounted to only 72 carcasses, which is very satisfactory. Other condemnations run around the same per cent as in the previous year, and call for no comment.

In looking over our imports we find that Canada brought in from U.S.A. points over 153,000,000 pounds of pork. The greater proportion of this was in the shape of singed sides to make Wiltshire bacon to enable the packer to fill war orders.

These singed sides equalled 1,040,000 singed hogs, and weighed about 119,000,000 pounds, the balance, 34,000,000 pounds, being hams, backs, other cuts, and barrelled pork.

This 34,000,000 pounds is equal to about 260,000 hogs which, added to 1,040,000 singed, bring the American hog import to an equivalent of 1,300,000 hogs, or around 58 per cent of what was killed in Canadian houses under Government inspection.

It seems strange that with the unprecedented high prices of the past year that the Canadian farmers do not produce more hogs. Of course we are not alone in this respect, our neighbours have the same condition to report. It makes one ask the question: Is Canada, with all its possibilities, producing all the hogs she can?

In the face of the increasing population and the ever-increasing demands from England and her allies for hog meats and fats, the situation is looking very serious, for at present the United States and Canada are the only countries to whom England and her allies can look to for increased supplies of this kind.

In looking over our exports, it is satisfactory to note that we only exported 166,236 head of cattle (about 33 per cent of which were under one year), against 241,578 last year. There is also a reduction in sheep, 59,340 (73 per cent of which might be classed as lambs), against 94,588 the previous year.

Our bacon exports increased 64 million pounds over last year.



SESSIONAL PAPER No. 15b

Below you will find a comparison between hog killing of Canada, Denmark, and Ireland for calendar years:—

Year.	Canada.	Denmark.	Ireland.
1912.....	1,650,966	2,084,786	1,416,490
1913.....	1,564,246	2,215,850	1,181,285
1914.....	2,255,479	2,654,041	1,266,620
1915.....	2,616,461	1,960,965	1,376,063
1916.....	2,313,389	1,534,011	1,277,050
1917 (Jan. to Sept., inc.) 9 mos.....	1,358,646	950,000*	697,900

\*Estimated.



DISEASES FOUND AT ESTABLISHMENTS UNDER INSPECTION.

Diseases.	Cattle.			Sheep			Swine.			Poultry.
	Carcasses.	Portions.	Lb.	Carcasses.	Portions.	Lb.	Carcasses.	Portions.	Lb.	
Abscess.	23	29,834		15	301		34	4,713		
Actinomycosis.	21	28,901			1			2,318		
Adhesions.		12,749			533			13,541		
Arthritis.				4			59	57		
Angiomatosis.		1,575								
Bruises.	115	63,791	7,866	20	1,955	45	29	19,691	66,698	
Cripples.	13	163		2	43		6	7,555		
Cysts.		144						3,658		
Cysticercus bovis.	258	2,307								
“ cellulosa.							497	191		
“ ovis.				3	208					
“ tenuicollis.				1	313					
Congestion.		30			48		2	2,908		
Cirrhosis.		81						5,663		
Decomposed.									81,670	
Dirty.	2	218	190,259	6	49	8,224		761	168,134	
Emaciation.	612		356,318	180			60			
Enteritis.	14						57			
Emphysema.	2	3		2			4	371		
Hernia.				1	3		6	107		
Hydraemia.	106	4		70						
Hog Cholera.							72			
Immaturity.	4,116									
Improper bleeding.	244			58			165			
Inflammation.	22			13			45	257		
Icterus.	9			19			28			
Induration.							2			
Metritis.	16			8			16			
Mucoid degeneration.	290									
Melanosis.	2	12								
Necrosis.		35			3,388			11,325		
Nephritis.	22						10	130,042		
Parasites.		43,352			115,062					
Pericarditis.	54			2			11			
Peritonitis.	69			8			154			
Pleuritis.	19			7			93			
Pneumonia.	96			56			254			
Pyemia or septicaemia.	221			30			556			
Sexual smell.							57	904		
Skin disease.								1,834		
Sarcoma.	2			1			8			
Sour.			147,453			4,819			174,759	



SESSIONAL PAPER No. 15b

Septic infection.....	128	29,033	2	122,218	15,266	6,136	1,031,942	498,136	1,517 and 302 carcasses.
Tuberculosis.....	4,351	11							
Tumours.....	11	2,829	2	314	28				
Uraemia.....	65	10,487	8						
Various.....									
Total.....	10,903	215,072	518	122,218	15,266	6,136	1,031,942	498,136	1,517 and 302 carcasses.
Found dead.....	353		380			1,867			



The following summary shows the results of post-mortem inspections of cattle, sheep, and swine from April 1, 1916, to March 31, 1917:—

Cattle marked "Canada Approved".....	637,956
Carcasses of cattle "Condemned".....	10,903
Percentage of cattle "Condemned".....	1.68
Portions of cattle "Condemned".....	215,072
Sheep marked "Canada Approved".....	416,057
Carcasses of sheep "Condemned".....	518
Percentage of sheep "Condemned".....	.12
Portions of sheep "Condemned".....	122,218
Swine marked "Canada Approved".....	2,239,375
Carcasses of swine "Condemned".....	6,136
Percentage of swine "Condemned".....	.27
Portions of swine "Condemned".....	1,031,942
Total number of carcasses "Passed".....	3,293,388
Total number of carcasses "Condemned".....	17,557
Percentage of carcasses "Condemned".....	.53
Total number of portions "Condemned".....	1,369,232

In addition to the animals slaughtered at inspected establishments, the following amounts of dressed and cured meats and lard, etc., were received during the fiscal year from foreign countries:—

	Lb.
Beef.....	11,542,163
Mutton.....	762,164
Pork.....	140,966,449
Lard.....	1,424,712

During the course of reinspection the following meats were condemned:—

	Cattle.	Sheep.	Swine.	Poultry.
	lb.	lb.	lb.	lb.
Bruised.....	7,866	45	66,698	.....
Decomposed.....	190,259	8,224	81,670	.....
Dirty.....	356,318	2,150	168,134	.....
Sour.....	147,453	4,819	174,759	.....
Various.....	10,487	28	6,875	1,517
Total.....	712,383	15,266	498,136	1,517

Total amount condemned on re-inspection, 1,225,785 pounds.

FRUIT AND VEGETABLES.

Owing to labour conditions, the plants engaged in canning fruits and vegetables have been under a severe handicap. A number of them did not operate at all. As a result, the total of the pack was much less, and the prices were much higher than would otherwise doubtless have been the case.

Sanitary conditions are well maintained. Their improvement during the past four years has been very marked.

Samples of all canned fruits and vegetables in Canada have been examined, and a record made. This record constitutes convincing evidence that, for the protection of the trade and the consumer, standards of quantity and quality should be established, promulgated, and enforced. The first steps are now being taken to that end.



## SESSIONAL PAPER No. 15b

The evaporators have been reported by our inspectors to be in good condition. Owing to the scarcity of apples, but about 40 per cent of the evaporators were operated during the year. However, the quality of the output was a decided improvement upon that of previous years. There has been quality if not quantity this year. Our supervision of the manufacture of evaporated apples, and our insistence upon the moisture-content being not more than 25 per cent, have been the primary causes of that improvement in quality shown in the high grade of evaporated apples now on sale.

## EVAPORATED AND CONDENSED MILK.

The establishments manufacturing evaporated and condensed milk have had an exceptionally heavy year, but nevertheless the plants have been well maintained.

During the year, sediment tests were made of all milk supplied by the various patrons. The results of these tests were compared with those of tests made of milk supplied to the retail trade in cities and towns, to butter factories and to cheese factories. The comparison has shown that a capital quality of clean milk was being supplied to the manufacturers of evaporated and condensed milk. The favourable nature of this comparison reflects credit not only upon the patrons, but also upon the manufacturers of evaporated and condensed milk. It demonstrates that the manufacturers' campaign among their suppliers has been effective and therefore a success.



